

**Amendments to the Abstract:**

Please replace the Abstract with the following:

**ABSTRACT**

A device for monitoring the mass flow of a particulate solids flow in a pneumatic pipeline includes a measuring chamber and an impact body. Through an inlet connection the particulate solids flow is blown as a compact solid/gas jet onto the impact body, so as to impact thereon with substantially its whole cross-section. An acoustic transducer is associated with the impact body for sensing structure-born acoustic waves, which are generated by the compact solid/gas jet impacting onto the impact body, and transforming them into an output signal. Signal processing process the output signal so as to derive a value that is representative of the mass flow rate of the particulate solids flow.